

REMARKS

In view of the above amendments and the following remarks, reconsideration and further examination are respectfully requested.

I. Amendments to the Specification and Abstract

The specification and abstract have been reviewed and revised to improve their English grammar. No new matter has been added.

II. Amendments to the Claims

Claims 39, 42, 60 and 63 have been cancelled without prejudice or disclaimer of the subject matter contained therein.

Further, independent claims 37, 38, 58 and 59 have been amended to clarify features of the invention recited therein and to further distinguish the present invention from the references relied upon in the rejections discussed below.

It is also noted that claims 37, 38, 41, 43, 45, 47-49, 57-59, 61, 62, 64, 66 and 68-71 have been amended to make a number of editorial revisions thereto. These editorial revisions have been made to place the claims in better U.S. form. Further, these editorial revisions have not been made to narrow the scope of protection of the claims, or to address issues related to patentability, and therefore, these amendments should not be construed as limiting the scope of equivalents of the claimed features offered by the Doctrine of Equivalents.

III. 35 U.S.C. §§ 102 and 103 Rejections

Claims 37, 39, 40, 50-52, 58, 60 and 61 were rejected under 35 U.S.C. § 102(b) as being anticipated by Yoshinari (U.S. 6,071,587). Claims 37-40, 50-55, 58-61, 71 and 72 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kojima (U.S. 6,416,837). Further, claims 37-40, 50-61, 71 and 72 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kojima (U.S. 2003/0190477). In addition, claims 37-40, 50-61, 71 and 72 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kojima (U.S. 6,881,466). Moreover, claims 41-49 and 62-70 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kojima '837. Finally, claims 41-43 and 62-64 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima '447 or Kojima '466. These rejections are believed clearly inapplicable to amended independent claims 37, 38, 58 and 59 and the claims that depend therefrom for the following reasons.

Amended independent claim 37 recites an information recording medium including a recording layer and a dielectric layer, wherein the dielectric layer includes M1 (provided that M1 is at least one element selected from Sc, La, Gd, Dy and Yb), M2 (provided that M2 is at least one element selected from Zr, Hf and Si) and O, such that the dielectric layer is not comprised of S and is not comprised of F. Yoshinari, Kojima '837, Kojima '447 and Kojima '466, or any combination thereof, fails to disclose or suggest the above-mentioned distinguishing features, as recited in independent claim 37.

Rather, Yoshinari describes first and second dielectric layers 31, 32, wherein zinc sulfide (ZnS) is a required component (see Figs. 1 and 2, and col. 7, line 9 to col. 8, line 13). Specifically Yoshinari teaches that the first dielectric layer 31 includes layer 1a and layer 1b,

such that layer 1a includes zinc sulfide (ZnS) and silicon oxide (SiO₂) (see Figl. 1 and col. 7, lines 9-32). Additionally, Yohinari teaches that when the second dielectric layer 32 is a laminate structure the second dielectric layer 32 includes zinc sulfide (ZnS) and silicon oxide (SiO₂) (see col. 7, lines 50-57).

Thus, in view of the above, it is clear that Yoshinari teaches that the first dielectric layer 31 requires the presence of zinc sulfide (ZnS) and silicon oxide (SiO₂), and that when the second dielectric layer 32 is a laminate structure, the dielectric layer requires the presence of zinc sulfide (ZnS) and silicon oxide (SiO₂), but fails to disclose or suggest recording medium including a dielectric layer, wherein the dielectric layer is not comprised of S and is not comprised of F, as required by claim 37.

Furthermore, Applicants note that Yoshinari teaches that when the dielectric layer 32 is a single layer structure (meaning that there is only one dielectric layer), the dielectric layer includes (i) zinc sulfide (ZnS) and silicon oxide (SiO₂), (ii) silicon oxide, or (iii) an oxide of a rare earth metal, as the main component of the dielectric layer (see Fig. 1 and col. 7, lines 44-57).

Thus, in view of the above, it is evident that when a single layer structured dielectric layer is used, Yoshinari requires the dielectric layer to include (i) zinc sulfide (ZnS) and silicon oxide (SiO₂), (ii) silicon oxide, or (iii) oxide of a rare earth metal, as the main component of the dielectric layer, but fails to disclose or suggest the dielectric layer includes M1 (provided that M1 is at least one element selected from Sc, La, Gd, Dy and Yb), M2 (provided that M2 is at least one element selected from Zr, Hf and Si) and O, such that the dielectric layer is not comprised of S and is not comprised of F, as required by claim 37.

In other words, even though Yoshinari teaches that when only a single layer dielectric layer used, the presence of sulfur (S) is not required (i.e., the single layer dielectric can be comprised of silicon oxide or a oxide of a rare earth metal), Yoshinari still fails to disclose or suggest that the single dielectric layer includes M1 (provided that M1 is at least one element selected from Sc, La, Gd, Dy and Yb), M2 (provided that M2 is at least one element selected from Zr, Hf and Si) and O, such that the dielectric layer is not comprised of S and is not comprised of F, as required by claim 37.

More specifically, Yoshinari does not disclose or suggest that the rare earth oxide or the silicon oxide can be combined with elements M1 and M2, as recited in claim 37, when only a single layer structured dielectric layer is used.

Now turning to Kojima '837, Applicants note that, as acknowledged on page 2 of the Office Action, Kojima '837 teaches that the dielectric layer includes a mixture of oxides of at least Y (see co. 7, line 65 to col. 8, line 23). Applicants also note that Kojima '837 suggests the use of ZnS-SiO₂ in the dielectric layer (see col. 8, lines 19-23 of Kojima '837).

Thus, in view of the above, it is clear that Kojima '837 teaches that the dielectric layer includes ZnS-SiO₂ and that the dielectric layer includes Y, which, in fact, teaches away from the dielectric layer including M1 (provided that M1 is at least one element selected from Sc, La, Gd, Dy and Yb), M2 (provided that M2 is at least one element selected from Zr, Hf and Si) and O, such that the dielectric layer is not comprised of S and is not comprised of F, as required by claim 37.

Now turning to Kojima '447 and Kojima '466, Applicants note that Kojima '447 and '466 require that, when the dielectric layers do not include sulfur (S), the dielectric layers

include fluorine (F) (see paragraph [0029] of Kojima '447 and col. 5, lines 27-32 of Kojima '466). Thus, in view of the above, it is apparent that Kojima '447 and '466 teach away from a dielectric layer including M1 (provided that M1 is at least one element selected from Sc, La, Gd, Dy and Yb), M2 (provided that M2 is at least one element selected from Zr, Hf and Si) and O, such that the dielectric layer is not comprised of S and is not comprised of F, as required by claim 37.

Therefore, because of the above-mentioned distinctions it is believed clear that independent claim 37 and claims 40, 41, 43-57 that depend therefrom are not anticipated by Yoshinari, Kojima '837, Kojima '447 or Kojima '466 and that independent claim 37 and claims 40, 41, 43-57 that depend therefrom would not have been obvious or result from any combination of Yoshinari, Kojima '837, Kojima '447 or Kojima '466.

Furthermore, there is no disclosure or suggestion in Yoshinari, Kojima '837, Kojima '447 and/or Kojima '466 or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify Yoshinari, Kojima '837, Kojima '447 and/or Kojima '466 to obtain the invention of independent claim 37. Accordingly, it is respectfully submitted that independent claim 37 and claims 40, 41, 43-57 that depend therefrom are clearly allowable over the prior art of record.

Amended independent claims 38, 58 and 59 are directed to an information recording medium, a method and a method, respectively and each recite features that correspond to the above-mentioned distinguishing features of independent claim 37. Thus, for the same reasons discussed above, it is respectfully submitted that independent claims 38, 58 and 59 and claims 61, 62 and 64-72 that depend therefrom are allowable over the prior art of record.

IV. Conclusion

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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May 5, 2009